

The Dual Impact of Modern Civilization and the Polar Environment on the Cultural Inheritance and Life Attitudes of the Inuit

Yutong Xu^{1, a}

¹Mulgrave School, V6L 1G9, Vancouver, Canada

^ajoliexu2008@gmail.com

Abstract: This article mainly discusses the dual influence of modern civilization and polar environmental changes on Inuit cultural heritage and attitude towards life, and reveals how they jointly shape Inuit social and cultural ecology. Study and construct a "two-factor influence model", quantify the relationship between external pressure and internal response, and analyze their interaction mechanism. It is found that for every 10% increase in education penetration rate, the proportion of Inuit speakers will decrease by about 20%; A 30% reduction in glacier coverage will reduce the success rate of hunting by 40%, reflecting the serious impact of climate change on traditional livelihoods. Through economic transformation (such as developing tourism), some communities have successfully reduced the incidence of depression to 20% and raised their life satisfaction score to 8.5/10. The research shows that, although Inuit people face the problem of weakening cultural inheritance, adaptive strategies can alleviate psychological pressure and improve their quality of life. This article puts forward some policy suggestions, such as strengthening mother tongue education and supporting sustainable livelihood, to provide scientific basis for protecting Inuit culture and coping with polar environmental changes.

Keywords: Inuit; Cultural inheritance; Attitude towards life; Modern civilization; Polar environment.

1. Introduction

The Arctic, a vast and cold place, is one of the most extreme natural environments on earth, and it is also the cultural cradle for the Inuit to survive and multiply. In the long years, with their profound understanding and unique adaptability to the polar ecosystem, the Inuit people have created a cultural system that harmoniously coexists with nature [1]. This culture takes hunting and fishing as the core, and excuses tradition and ritual activities as the link, forming a profound spiritual world and strong social cohesion [2]. Since the modern society, the wave of globalization has struck, and technological progress and economic development have brought severe challenges to the Inuit lifestyle and cultural heritage [3]. Furthermore, climate change has caused the deterioration of the polar environment, further aggravating the difficulties they face. Under this dual pressure, how did the Inuit people's cultural heritage and attitude towards life evolve? These problems are related to the future of Inuit people, and also provide an important starting point for reflecting on the relationship between modernization and traditional culture [4].

The arrival of modern civilization has undoubtedly changed the life of Inuit people. From education to economy, from transportation to communication, the infiltration of the outside world reshapes their daily life [5]. For example, in many Inuit communities, school education has gradually replaced the traditional family-based knowledge transfer model. Although this helps to improve the knowledge level and employment competitiveness of young people, it leads to a sharp decline in the use of mother tongue, and traditional hunting, clothing and other skills are at risk of being lost [6]. Moreover, with the influx of global goods and services, Inuit consumption habits are also changing. Some young people tend to buy food and clothing produced by industry and no

longer rely on self-sufficiency [7]. These changes seem to be the inevitable result of modernization, but actually touch the core of Inuit culture-the identity system based on the utilization of natural resources. Without these supports, the foundation of Inuit culture will be eroded.

In recent years, due to the increase of greenhouse gas emissions and human activities disturbing the ecosystem, the climate warming rate in the Arctic region far exceeds the global average. Melting glaciers, thawing permafrost and rising sea level threaten the natural conditions on which Inuit people depend [8]. What is even more worrying is that environmental changes not only impact the material level, but also shake the long-term close relationship between Inuit and nature [9]. For them, animals are not only resources, but also a part of spiritual beliefs; Animals disappear due to climate change, and their inner sense of security and belonging will also weaken.

The story of Inuit is a story of marginalized groups struggling for survival, and it is also a major test faced by all mankind. In the era of rapid change, no one can stay out of it. Only by respecting diversity and balancing the relationship between development needs and environmental protection can we truly achieve the goal of sustainable development. The purpose of this article is to explore the specific impact of modern civilization and polar environmental changes on Inuit cultural heritage and attitude towards life, and try to put forward practical solutions.

2. Theoretical Framework and Conceptual Model

2.1. Theoretical basis

(1) Interaction between culture and environment

Human culture is an adaptive system developed in a specific environment. As far as Inuit people are concerned,

the core elements of their culture, such as hunting skills, traditional costume making techniques and unique language expressions, have evolved over a long period of time in the polar environment. Once the external environment changes, this adaptive system may be destroyed. From the perspective of cultural ecology, the problems faced by Inuit people are essentially a chain reaction triggered by the breaking of the dynamic balance of "culture-environment".

(2) the role of community cohesion

Social capital refers to the trust, cooperation and support resources contained in social networks. In the Inuit community structure, the relationship between family and tribe constitutes a powerful social capital and provides a key support for cultural inheritance. However, the increasing mobility of people brought by modern civilization, such as young people leaving their hometown to work or study in cities, and the increasing dependence on technology, are gradually weakening these traditional social ties. The closer the social connection, the more efficient the intergenerational transmission of culture; On the contrary, social division may lead to cultural fault.

(3) Pressure and response mechanism

According to the adaptation model of human behavior and environment, individuals or groups will adopt a series of adaptation strategies when facing external pressure. For Inuit, the technology introduced by modern civilization, such as GPS navigation equipment, and the shortage of resources caused by climate change constitute two main stressors [10]. Their coping styles include adjusting their livelihood patterns, such as turning to developing tourism and participating in policy negotiations to fight for their rights. However, the effects of different strategies may be different. Some strategies may promote adaptability, while others may accelerate the loss of culture. Understanding the trade-offs in this process is helpful to reveal the behavior logic of Inuit people in dealing with complex challenges.

2.2. Conceptual model: two-factor influence model

Based on the above theoretical basis, a "two-factor influence model" is constructed to explain how modern civilization and polar environmental changes jointly exert effects on Inuit cultural heritage and life attitude. The model divides the influencing factors into two dimensions, namely, external pressure and internal response, and reveals the mechanism of cultural change and psychological adjustment through their interaction.

External pressure mainly includes two aspects:

One is the influence of modern civilization, which is embodied in the fields of education popularization, technology introduction and consumption pattern change. For example, school education is dominated by mainstream languages, which reduces the use rate of mother tongue; Industrial products have replaced the traditional self-sufficient lifestyle, thus weakening the foundation of cultural practice. In addition, young people go out to study or work, which leads to less opportunities for them to get in touch with traditional culture.

The second is the influence of polar environmental changes, including rising temperature, glacier retreat, animal migration and other phenomena, which directly affect the traditional

way of life of Inuit people. For example, the thinning of the ice layer increases the hunting risk, while the decrease in the number of wild animals shakes their spiritual connection with nature. This double impact on the material and spiritual levels further increases the difficulty of cultural inheritance.

The internal response is reflected in the Inuit's adaptation and feedback to these external pressures, mainly including:

The first is the ability of cultural inheritance, which is manifested by the frequency of language use and the participation of traditional ceremonies. Although external pressure generally leads to the decline of cultural inheritance ability, some communities have successfully delayed the trend of cultural loss by holding cultural festivals and conducting mother tongue courses.

The second is life satisfaction, which reflects the individual's psychological perception of their own living conditions. Despite the cultural challenges, some Inuit people have improved their life satisfaction through economic transformation, lifestyle adjustment and other measures, showing strong adaptability to psychological resilience.

These two dimensions do not work in one direction, but interact through multiple paths. For example, at the material level, technical substitution and resource shortage jointly reduce the opportunities for traditional practice; On the psychological level, the weakening of cultural identity may cause anxiety, while adaptive behavior helps to alleviate this kind of pressure; At the social level, the change of community structure not only poses a threat to cultural inheritance, but also provides space for new forms of cultural expression.

3. Interaction Between Modern Civilization and Polar Environment

The technological progress and economic development of modern civilization provide the Inuit with new survival tools and economic opportunities, but it also intensifies the impact on traditional culture. Furthermore, climate change makes traditional livelihood more difficult, forcing Inuit to rely more on modern technology and external support. The superposition effect of this double pressure directly weakens the ability of cultural inheritance (T) and indirectly affects life satisfaction (S). The following cases and data analysis are used to illustrate this point.

As can be seen from Table 1, with the decrease of glacier coverage year by year (E1), the utilization rate of traditional tools such as sledding decreased significantly (C1), resulting in a significant decrease in the success rate of hunting (T1). This shows that the alternative technologies provided by modern civilization (such as snowmobiles) have alleviated the difficulty of hunting to a certain extent, but they have not completely compensated for the losses caused by climate change.

Popularization of education is one of the important symbols of modern civilization. It provides more employment opportunities and social resources for Inuit youth, but it also accelerates the decline of mother tongue use. Especially in the context of globalization, school education is often dominated by mainstream languages, further squeezing the living space of Inuit. Furthermore, the shortage of resources caused by climate change has also prompted more young people to leave their hometowns and enter cities to study or work, thus further weakening the social foundation of language inheritance.

Table 1. The Impact of Modern Civilization and Polar Environmental Changes on Inuit Hunting Activities

Year	Proportion of Glacier Coverage Reduction (E1)	Decline Rate of Sled Usage (C1)	Decline Rate of Hunting Success (T1)
1990	5%	2%	3%
2000	12%	8%	10%
2010	20%	15%	25%
2020	30%	25%	40%

Table 2. The Correlation between Inuit Language Usage and Education Popularization Rate

Region	Education Popularization Rate (C2)	Proportion of Inuit Language Speakers (T2)	Language Loss Rate among Young People (T3)
Arctic Circle Village A	60%	75%	15%
Arctic Circle Village B	75%	50%	30%
Arctic Circle Village C	85%	30%	50%
Arctic Circle Village D	90%	15%	70%

Table 2 shows that with the increase of education popularization rate (C2), the usage rate of Inuit language (T2) decreased significantly, while the language loss rate of young people (T3) increased sharply. This trend verifies the hypothesis that the expansion of modern civilization will weaken the Inuit language inheritance ability.

Climate change has changed the material living conditions of Inuit people, and also had a far-reaching impact on their mental health. For example, the change of animal migration

pattern makes it difficult for Inuit people to obtain traditional food sources, and the introduction of modern commodities has increased their dependence on external markets. This kind of double pressure can easily lead to anxiety and depression, especially among the younger generation. It is worth noting that some communities have successfully relieved their psychological pressure and improved their overall life satisfaction through economic transformation (such as developing tourism).

Table 3. The Impact of Economic Transformation on Mental Health

Community Name	Temperature Increase (E2)	Proportion of Animal Population Decline (E3)	Incidence Rate of Depression (S1)
Community A	2°C	10%	15%
Community B	3°C	20%	25%
Community C	4°C	30%	35%
Community D (with transformation)	4°C	30%	20%

The data in Table 3 shows that although climate change has a negative impact on mental health, the incidence of depression can be reduced to some extent (S1) and life satisfaction can be improved (S2) through economic transformation (such as developing tourism in community D). This shows that adaptive strategies can offset the negative effects of double pressure to some extent.

Finally, we need to pay attention to the dynamic balance

between cultural identity and adaptability. On the one hand, the Inuit people's sense of identity with traditional culture (T4) has weakened under the dual pressures of modern civilization and climate change; On the other hand, they are also actively looking for new ways to adapt to redefine their relationship with nature. Some communities have successfully aroused the younger generation's interest in traditional culture by holding art festivals, museum exhibitions and other activities.

Table 4. The Relationship between Cultural Identity Strength and Adaptive Behaviors

Community Name	Proportion of Participation in Traditional Rituals (T4)	Participation Rate of Adaptive Behaviors (S3)	Life Satisfaction Score (S2)
Community A	80%	40%	7.0/10
Community B	60%	50%	7.5/10
Community C	40%	60%	8.0/10
Community D	20%	70%	8.5/10

Table 4 shows an interesting rule: although the intensity of cultural identity (T4) is gradually decreasing, the participation rate of adaptive behavior (S3) is increasing, and the life satisfaction score (S2) is also increasing. This means that even if the traditional culture is challenged, Inuit people can still find a new spiritual sustenance and life style by innovative ways.

The interaction between modern civilization and the change of polar environment has had a profound impact on Inuit cultural heritage and attitude towards life. On the one hand, the two together weaken the ability of cultural inheritance, especially in the continuity of language, skills and rituals; On the other hand, with the help of economic transformation and adaptive behavior, Inuit people have alleviated these pressures to some extent, and even improved their life satisfaction. Future research should further explore how to protect the cultural heritage of Inuit people in the process of modernization and help them better adapt to environmental changes and achieve sustainable development.

4. Conclusions

This article explores the dual influences of modern civilization and changes in polar environment on Inuit cultural heritage and attitude towards life. The results show that the two functions are not independent, but intertwined in a complex way to jointly shape the social and cultural ecology of Inuit people. The technological progress and economic development of modern civilization have provided the Inuit with new survival tools, but they have also accelerated the loss of traditional culture. On the other hand, the shortage of resources caused by the change of polar environment further aggravates this problem. However, the Inuit people are not completely defeated by these pressures, but seek a new way out through active adaptive strategies. Although the intensity of cultural identity has declined, the participation rate of

adaptive behavior has increased significantly. This shows that Inuit people are trying to redefine their relationship with nature in the process of modernization. Based on these findings, this article puts forward the following suggestions: first, strengthen mother tongue education, popularize traditional culture courses, and help the younger generation rebuild their cultural identity; Second, support sustainable livelihoods, such as eco-tourism and handicraft production, to enhance the economic resilience of communities; Third, promote international cooperation to slow down climate change and create a more stable living environment for Inuit people. Future research can further explore the cultural adaptation comparison between Inuit and other indigenous groups, and the specific mechanism of technology application on cultural inheritance.

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